

Table 1: Summary of Barnstable, MA Stormwater BMP, June 10, 2015

Location	Site ID	Barn BMP	Barn BMP dup
	Sample Time	13:25	13:25
Coordinates	North	41.65154319°N	Same as “Barn BMP”
	West	70.27919646°W	Same as “Barn BMP”
YSI Meter	Temperature, °C	15.4	Same as “Barn BMP”
	Conductivity, µS/cm	796	Same as “Barn BMP”
	Salinity, ppt	0.4	Same as “Barn BMP”
Field Test Kits (mg/L)	Ammonia	0.25	Same as “Barn BMP”
	Chlorine	0.02	Same as “Barn BMP”
	Surfactants	0.1	Same as “Barn BMP”
Bacteria	E.Coli, MPN/100ml	ND	ND
	Enterococcus, MPN/100ml	10	20
Pharmaceutical and Personal Care Products (ng/L)	Atenolol	ND	ND
	Acetaminophen	6.4	7.5
	Cotinine	30	31
	1,7-Dimethylxanthine	4.3	6.3
	Caffeine	150	160
	Metoprolol	ND	ND
	Carbamazepine	1.0 ¹	1.4 ¹

GPM: gallon per minute

ND: not detected above laboratory reporting limit indicated in parentheses

NA: Not analyzed

E. Coli: Red ≥ 10,000 col/100ml, Orange ≥ 1260 col/100ml, Yellow ≥ 236 col/100ml, Black < 236 col/100ml

Entero: Red ≥ 1000 col/100ml, Orange ≥ 350 Yellow ≥ 54 col/100ml, Black <54 col/100ml

NH₃: Red ≥ 6 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.0 mg/L

Cl₂: Red ≥ 1.0 mg/L, Orange ≥ 0.3 mg/L, Yellow ≥ 0.02 mg/L, Black < 0.02 mg/L

Surfactants: Red ≥ 1.0 mg/L, Orange ≥ 0.5 mg/L, Yellow ≥ 0.25 mg/L, Black < 0.25 mg/L (may give false positive at salinity greater than 1 ppt)

PPCP: pink = concentrations greater than background

¹. Internal standard recovery for carbamazepine was below QC limits 39%, where 50-150% is required.

EPA notes while there are currently no numerical standards to compare pharmaceutical results against, it is EPA’s experience that acetaminophen is the single best bacterial source tracking compound of those listed above, and any detection of this compound may indicate a source of sanitary sewage. With respect to all of the above compounds, when a sanitary sewage source is present, depending on the type of source, distance from the sample location, and the strength of the source, concentrations of these compounds may range from the low ng/l.